October 21, 1961

Dr. Graham DuShane
Editor, Science
1515 Massachusetts Avenue, N.W.
Washington 5, D.C.

Dear Dr. DuShane:

The article "Congress Presses Funds on the National Institutes of Health" in your issue of September 22 is a rather distorted and somewhat misleading interpretation of the background of increased federal support for medical research.

The author makes quite a point of the percentage increases in contrasting this year's appropriations for the National Institutes of Health with appropriations a few years ago. He neglects to point out that federal support for medical research was practically non-existent fifteen years ago; all increases above a rock-bottom level naturally produce handsome growth percentages.

He fails to relate increases in federal medical research support to comparable programs in other areas of national concern. Support of our space program, for example, has jumped from practically zero a few years ago to close to $2 billion in the current fiscal year, with predictions from our physical scientists that a few years from now Congress will be asked to appropriate $6 billion annually for this program alone.

If Mr. Toth applied his slide rule to these space appropriations, he would obtain astronomic percentage increases.

Furthermore, Mr. Toth does not relate expenditures for medical research to the total federal budget. Medical research support is not only far less than 1% of total appropriations, but is a small segment indeed of the $9 billion which the federal government currently spends for research of all types.

It is also charged that there is a good deal of "force feeding" of medical research by Congress with a consequent "regurgitation". The exact contrary is true. In each year that Congress increased the monies for medical research over the Administration budget, the critics cried out that the money could not, and would not, be spent properly. The record shows, however, that at the end of each of these fiscal years, there was always a sizeable backlog of scientifically approved research and training projects which could not be supported because of lack of funds. Furthermore, the present rate of rejection of research grants denies support to more than half of all applications submitted to Bethesda.

Concluding his article, Mr. Toth asks for us to produce "a golden egg or two."

I will pass lightly over the obvious temptation to dwell on some of the less than golden eggs produced in the research programs of the Department of Defense, and elsewhere in our government. We have spent hundreds of millions of dollars in developing planes which never flew and additional hundreds of millions for missiles which were later abandoned.

With a much smaller federal investment, medical research has produced many golden eggs over the last fifteen years. Space does not permit a listing of most of these accomplishments, but a few should be cited here:

1. In the field of cancer, one of every three Americans is saved today as against one in every four a few years ago. This gain has been achieved largely through the national cancer chemotherapy program supported by the Congress.

We now have five-year cures against three types of cancer. This is the first time in history that this has occurred.

Through the remarkable cancer compound screening program, we have produced more than a score of chemical agents which are effective in some degree against various forms of cancer.

2. In the field of cardiovascular diseases, which account for more deaths in our country than all other diseases combined, more progress has been made in the past decade alone than in all the years of recorded history. This has been achieved largely through research supported by Congressional appropriations.

Heart disease is no longer regarded as a sentence of death. In less than a decade the prognosis in most forms of congenital heart disease has been converted from "hopeless" to "surgically curable."

Similarly, aneurysms and occlusive lesions of the aorta and major arteries which were previously considered inevitably disabling or fatal conditions are now amenable to corrective surgical treatment. The majority of patients with hypertension can now be well controlled or cured.

Over the past decade an impressive body of scientific knowledge has been developed concerning the etiology and treatment of arteriosclerosis.

3. In the field of psychiatry, the Psychopharmacology Service Center of the National Institute of Mental Health is the prime source of support for research scientists who are developing more effective drugs against the various forms of mental illness. The remarkable reduction in the number of patients resident in our public mental hospitals is a direct consequence of this accelerated research.

4. In the field of neurology, research work at the National Institute of Neurological Diseases and Blindness led to the discovery of the cause of retrolental fibroplasia, the prime cause of blindness in infants for many years. It has been stated that the cost of the care for the thousands of children already blinded will be 100,000 times the cost of the medical research which has led to its successful prevention.

Day in and day out, week in and week out, there are reports of additional advances against many baffling diseases.

On September 27, a few days after Mr. Toth's article appeared, the Surgeon General of the Public Health Service announced that isoniazad, a drug widely used to treat tuberculosis, was 80% effective in preventing the disease among more than 12,000 people directly exposed to newly discovered cases of tuberculosis. In man's ancient fight against tuberculosis, no one ever before dared hope for this degree of prevention.

While Mr. Toth's article is heavy on statistics and percentages, it strangely omits any discussion of the truly staggering human disability resulting from unchecked disease. In World War II, for example, five million Americans in the prime of life were unable to join the fight to preserve this democracy because of pronounced physical and mental defects. Two diseases alone, heart disease and cancer, killed more Americans in six months of last year than were slain in all four years of World War II. Every minute at least two persons die from heart disease and cancer in the United States and two-thirds of all Americans now living will eventually have these diseases.

It really gets down to a very simple question: what price human life? What price do we put upon a drug which arrests leukemia in a child and gives him, and his parents, a few more years of hope and happiness? What price do we put upon the discovery of a research breakthrough which prevents blindness in a child? What price do we put upon the heart surgery which restores a victim to productivity and to usefulness in our society?

We who are involved in medical research would be the first to admit that ours is a long-time effort with many heart-breaks and many disappointments along the way, but we are not defeatists -- we gain strength from the support we have received and we will persevere until we have unraveled the mysteries of the major illnesses of our time.

Sincerely yours,

Michael E. De Bakey, M.D.
Professor of Surgery

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